

The Claims:

The following listing of claims will replace all prior versions and listing of claims in the application:

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1. (original) A coordinated push synchronization method, comprising the acts of:

- detecting changes to a local application data store;
- identifying a record affected by a detected change;
- pushing the identified record;
- ascertaining whether the identified record, in its current form as affected by the detected change, has been replicated or deleted in a remote application data store through user-initiated synchronization; and
- if not, updating the remote application data store with the pushed record.

2. (original) The method of Claim 1, wherein the act of ascertaining includes comparing a local change counter associated with pushed record with a remote change counter, where values for the local and remote change counters are equal the identified record, in its current form, has been replicated or deleted through user-initiated synchronization.

3. (original) The method of Claim 1, wherein the act of pushing the identified record comprises:

- if the identified record has been detected as being new, pushing a replica of the identified record with instructions to save the replica in the remote application data store;

- if the identified record has been detected as being modified, pushing a replica of the identified record with instructions to save the replica in the remote application data store replacing a prior version of the record; and

- if the identified record has been detected as being deleted, pushing instructions to delete a prior version of the identified contained in the remote application data store.

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4. (original) The method of Claim 1, further comprising, after updating the remote application data store, setting a coordination flag for the pushed record.

5. (original) A coordinated user-initiated synchronization method, comprising the acts of:

detecting changes to a local application data store;

identifying a record affected by a detected change;

ascertaining whether the identified record, in its current form as affected by the detected change, has been replicated in or deleted from a remote application data store through push synchronization; and

if not, synchronizing the remote application data store with the local application data store.

6. (original) The method of Claim 5, wherein the act of ascertaining includes examining a coordination flag associated with the identified record, a set coordination flag indicating that the identified record, in its current form, has been replicated in or deleted from the remote application data store through push synchronization and a reset coordination flag indicating that the identified record, in its current form, has not.

7. (original) The method of Claim 5, wherein the act of synchronizing comprises:

if the identified record has been detected as being new, replicating the identified record in the remote application data store;

if the identified record has been detected as being modified, replicating the identified record in the remote application data store replacing a prior version of the record; and

if the identified record has been detected as being deleted, deleting the version of the identified record from the remote application data store.

8. (original) The method of Claim 5, further comprising the act of altering a

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local change counter associated with a record affected by a detected change, and wherein the act of identifying comprises comparing a global change counter associated with the affected record with the local change counter associated with the affected record.

9. (original) The method of Claim 5, further comprising the acts of updating a value of a global change counter associated with the identified record to equal the value of a local change counter associated with the identified record, and resetting a coordination flag associated with the identified record.

10. (original) A coordinated push and user-initiated synchronization method, comprising:

- detecting changes to a local application data store;

- identifying a record affected by a detected change;

- if the identified record is pushed, ascertaining whether the identified record, in its current form as affected by the detected change, has been replicated in or deleted from a remote application data store through user-initiated synchronization and, if not, updating the remote application data store with the pushed record; and

- if a user initiates synchronization, ascertaining whether the identified record, in its current form as affected by the detected change, has been replicated in or deleted from the remote application data store through push synchronization and, if not, synchronizing the remote application data store with the local application data store.

11. (original) The method of Claim 10, wherein the act of ascertaining whether the identified record has been replicated in or deleted from a remote application data store through user-initiated synchronization includes comparing a local change counter associated with the identified record with a remote change counter, the identified record, in its current form, has been replicated or deleted through user-initiated synchronization where values for the local and remote change counters are equal.

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12. (original) The method of Claim 10, wherein the act of ascertaining whether the identified record has been replicated in or deleted from the remote application data store through push synchronization includes examining a coordination flag associated with the identified record, a set coordination flag indicating that the identified record, in its current form, has been replicated in or deleted from the remote application data store through push synchronization and a reset coordination flag indicating that the identified record, in its current form, has not.

13. (original) The method of Claim 10, wherein the act of updating the remote application data store with the pushed record comprises:

if the pushed record has been detected as being new, replicating the pushed record in the remote application data store;

if the pushed record has been detected as being modified, replicating the pushed record in the remote application data store replacing a prior version of the pushed record contained in the remote application data store; and

if the pushed record has been detected as being deleted, deleting a prior version of the pushed record contained in the remote application data store.

14. (original) The method of Claim 10, wherein the act of synchronizing the remote application data store with the local application data store comprises:

if the identified record has been detected as being new, replicating the identified record in the remote application data store;

if the identified record has been detected as being modified, replicating the identified record in the remote application data store replacing a prior version of the record; and

if the identified record has been detected as being deleted, deleting the version of the identified record from the remote application data store.

15. (original) The method of Claim 10, further comprising, after updating the remote application data store with the pushed record, setting a coordination flag associated with the pushed record.

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16. (original) The method of Claim 10, further comprising, after synchronizing the remote application data store with the local application data store is completed, updating a value of a global change counter associated with the identified record to equal the value of a local change counter associated with the identified record, and resetting a coordination flag associated with the identified record.

17. (original) A coordinated push synchronization computer program product comprising a computer useable medium having computer readable instructions thereon for:

- detecting changes to a local application data store;

- identifying a record affected by a detected change;

- pushing the identified record;

- ascertaining whether the identified record, in its current form as affected by the detected change, has been replicated or deleted in a remote application data store through user-initiated synchronization; and

- if not, updating the remote application data store with the pushed record.

18. (original) The product of Claim 17, wherein the instructions for ascertaining include instructions for comparing a local change counter associated with the identified record with a remote change counter, where values for the local and remote change counters are equal the identified record, in its current form, has been replicated or deleted through user-initiated synchronization.

19. (original) The product of Claim 17, wherein the instructions for pushing the identified record comprise instructions for:

- if the identified record has been detected as being new, pushing a replica of the identified record with instructions to save the replica in the remote application data store;

- if the identified record has been detected as being modified, pushing a replica of the identified record with instructions to save the replica in the remote

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application data store replacing a prior version of the record; and  
if the identified record has been detected as being deleted, pushing instructions to delete a prior version of the identified contained in the remote application data store.

20. (original) The product of Claim 17, further comprising instructions for, after updating the remote application data store with the pushed record, setting a coordination flag for the pushed record.

21. (original) A coordinated user-initiated synchronization computer program product comprising a computer useable medium having computer readable instructions thereon for:

- detecting changes to a local application data store;
- identifying a record affected by a detected change;
- ascertaining whether the identified record, in its current form as affected by the detected change, has been replicated in or deleted from a remote application data store through push synchronization; and
- if not, synchronizing the remote application data store with the local application data store.

22. (original) The product of Claim 21, wherein the instructions for ascertaining include instructions for examining a coordination flag associated with the identified record, a set coordination flag indicating that the identified record, in its current form, has been replicated in or deleted from the remote application data store through push synchronization and a reset coordination flag indicating that the identified record, in its current form, has not.

23. (original) The product of Claim 21, wherein the instructions for synchronizing comprise instructions for:

- if the identified record has been detected as being new, replicating the identified record in the remote application data store;

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if the identified record has been detected as being modified, replicating the identified record in the remote application data store replacing a prior version of the record; and

if the identified record has been detected as being deleted, deleting the version of the identified record from the remote application data store.

24. (original) The product of Claim 21, further comprising instructions for altering a local change counter associated with a record affected by a detected change, and wherein the instructions for identifying comprise instructions for comparing a global change counter associated with the affected record with the local change counter associated with the affected record.

25. (original) The product of Claim 21, further comprising instructions for updating a value of a global change counter associated with the identified record to equal the value of a local change counter associated with the identified record, and resetting a coordination flag associated with the identified record.

26. (original) A coordinated push and user-initiated synchronization computer program product comprising a computer useable medium having computer readable instructions thereon for:

detecting changes to a local application data store;

identifying a record affected by a detected change;

if the identified record is pushed, ascertaining whether the identified record, in its current form as affected by the detected change, has been replicated in or deleted from a remote application data store through user-initiated synchronization and, if not, updating the remote application data store with the pushed record; and

if a user initiates synchronization, ascertaining whether the identified record, in its current form as affected by the detected change, has been replicated in or deleted from the remote application data store through push synchronization and, if not, synchronizing the remote application data store with the local application data store.

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27. (original) The product of Claim 26, wherein the instructions for ascertaining whether the identified record has been replicated in or deleted from a remote application data store through user-initiated synchronization include instructions for comparing a local change counter associated with the identified record with a remote change counter, the identified record, in its current form, has been replicated or deleted through user-initiated synchronization where values for the local and remote change counters are equal.

28. (original) The product of Claim 26, wherein the instructions for ascertaining whether the identified record has been replicated in or deleted from the remote application data store through push synchronization include instructions for examining a coordination flag associated with the identified record, a set coordination flag indicating that the identified record, in its current form, has been replicated in or deleted from the remote application data store through push synchronization, a reset coordination flag indicating that the identified record, in its current form, has not.

29. (original) The product of Claim 26, wherein the instructions for updating the remote application data store with the pushed record comprise instructions for:  
if the pushed record has been detected as being new, replicating the pushed record in the remote application data store;

if the pushed record has been detected as being modified, replicating the pushed record in the remote application data store replacing a prior version of the record; and

if the pushed record has been detected as being deleted, deleting a prior version of the identified record contained in the remote application data store.

30. (original) The product of Claim 26, wherein the instructions for synchronizing the remote application data store with the local application data store comprise instructions for:

if the identified record has been detected as being new, replicating the identified record in the remote application data store;



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if the identified record has been detected as being modified, replicating the identified record in the remote application data store replacing a prior version of the record; and

if the identified record has been detected as being deleted, deleting the version of the identified record from the remote application data store.

31. (original) The product of Claim 26, further comprising instructions for, after updating the remote application data store with the pushed record, setting a coordination flag associated with the identified record.

32. (original) The product of Claim 26, further comprising instructions for, after synchronizing the remote application data store with the local application data store have been executed, updating a value of a global change counter associated with the identified record to equal the value of a local change counter associated with the identified record, and resetting a coordination flag associated with the identified record.

33. (original) A coordinated push synchronization system, comprising a push module and a reception module, the push operable to push a record and a local change counter associated with the record to the reception module, the reception module operable to compare the pushed local change counter with a remote change counter and to update a remote application data store with the pushed record based upon the comparison.

34. (original) The system of Claim 33, wherein the local and remote change counters each have a value and the reception module is operable to compare those values and update the remote application data store only if the values are not equal.

35. (original) The system of Claim 33, wherein the record is associated with a coordination flag, and wherein the push module is further operable to set the coordination flag upon updating the remote application data store with the pushed record.

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36. (original) A coordinated user-initiated synchronization system, comprising a synch module in communication with a synch engine, the synch module operable to detect the creation, modification, or deletion of or to a record and to modify a change counter according to the detection, the synch engine operable to examine the change counter and a coordination flag associated with the record and to issue instructions to replicate or delete the record on a remote system based upon the examination.

37. (original) The system of Claim 36, wherein the coordination flag has a status set or reset and wherein the synch engine is further operable to issue instructions to replicate or delete the record on the remote system only if the coordination flag is reset.

38. (original) The system of Claim 36, wherein the record is associated with a global change counter controlled by the synch engine and a local change counter controlled by the synch module, and wherein the synch engine is further operable to modify a value of the global change counter to equal a value for the local change counter upon issuing instructions to replicate of the record.

39. (original) A coordinated push and user initiated synchronization system, comprising:

a push module and a reception module, the push module operable to detect the creation, modification, or deletion of a record, and to push the record and a local change counter associated with the record to the reception module, the reception module operable to compare the pushed local change counter with a remote change counter associated with the record and to update a remote application data store using the pushed record based upon the comparison;

a synch module operable to detect the creation, modification, or deletion of the record, to modify the local change counter based upon the detection and to reset the coordination flag; and

a synch engine in communication the local synch module, the synch engine

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operable to compare the local change counter with a global change counter associated with the record and to examine the coordination flag and to issue instructions to replicate or delete the record in the remote application data store based upon the comparison and examination.

40. (original) The system of Claim 39, wherein the local and remote change counters each have a value and the reception module is operable to compare those values and update the remote application data store only if the values are not equal.

41. (original) The system of Claim 36, wherein the coordination flag has a status set or reset, and the synch engine is further operable to issue instructions to replicate or delete the record in the remote application data store only if the coordination flag has a reset status.

42. (original) The system of Claim 39, wherein the push module is further operable to set the coordination flag upon updating the remote application data store with the pushed record.

43. (original) The system of Claim 36, wherein the synch engine is further operable to modify a value of the global change counter to equal a value for the local and remote change counters upon replication of the record on the remote system.

44. (original) A coordinated push and user initiated synchronization system, comprising:

a means for detecting the creation, modification, or deletion of a record and pushing the record and a local change counter associated with the record;

a means for receiving the pushed record and local change counter, comparing the pushed local change counter with a remote change counter associated with the record, and updating a remote application data store using the pushed record based upon the comparison;

a means for detecting the creation, modification, or deletion of the record,

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modifying the local change counter, and resetting the coordination flag; and  
a means for comparing the local change counter with a global change counter, examining the coordination flag, and issuing instructions to replicate or delete the record in the remote application data store based upon the comparison and examination.

45. (new) Computer readable media having instructions for:  
identifying a change to a first data store;  
initiating a push synchronization;  
identifying whether a second data store has updated to reflect the identified change through user initiated synchronization; and  
if the second data store has not be updated through user initiated synchronization, updating the second data store to reflect the identified change through the push synchronization.

46. (new) A computer readable medium having instructions for:  
upon detecting user initiated synchronization to synchronize a first data store with a second data store, identifying a change to the first data store;  
identifying whether a second data store has been updated to reflect the identified change through push synchronization; and  
if the second data store has not been updated through push synchronization, updating the second data store to reflect the identified change through the user-initiated synchronization.

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